IN THE CLAIMS

1. (canceled) A method of coating a substrate subject to incursion of moisture with a coating composition to resist moisture penetration into the substrate coated with the coating, the method comprising:

applying to a surface of the substrate a coating composition, the coating composition prepared by a process comprising:

heating and blending together a mixture comprising waxes and paraffins and dispersing powdered metal, metal oxide, or metal carbide throughout the mixture; and

cooling the mixture to form a waxy solid substantially free of entrained gasses with powdered metal, metal oxide or metal carbide dispersed therein; and

forming a homogeneous coating on the substrate surface without need to apply heating so that moisture incursion into the coated substrate is reduced by at least about 50% as compared to an uncoated substrate under the same temperature and moisture conditions.

2. (Canceled) The method of claim 1, wherein the mixture comprises a mixture of beeswax and paraffins.

3. (Canceled) The method of claim 2, wherein the paraffins comprise primarily aliphatic hydrocarbons having chain lengths in the range from about 18 to about 36 carbon atoms.

4. (Canceled) The method of claim 1, wherein the metal comprises aluminum.

5. (Canceled) The method of claim 1, wherein the metal oxide comprises titanium oxide or aluminum oxide.

6. (Canceled) The method of claim 2, wherein the metal comprises aluminum.

7. (Canceled) The method of claim 2, wherein the metal oxide comprises titanium oxide or aluminum oxide.

8. (Canceled) The method of claim 1, wherein the mixture, before addition of powdered metal or metal oxide, has a melting point in the range of about 120 to 200°F.

9. (Canceled previously)

10. (Canceled) The method of claim 1, wherein the composition is a solid at temperatures in the range below about 140°F, and liquefies upon heating to a temperature in the range from about 170 to about 190°F.

11. (Canceled) The method of claim 10, wherein the applying comprises applying a liquefied composition by spraying, painting with a brush or applying with a roller.

12. (Canceled) The method of claim 1, wherein the powdered metal or metal oxide or metal carbide comprises a sufficient amount to permit uniform heating of a mass of the composition, and to provide such internal compression of a mass of the composition upon cooling as to substantially exclude occluded gasses from a cooled mass.

13. (Canceled) The method of claim 1, wherein the amount of powdered metal or metal oxide in the mixture comprises from about 5 to about 15 wt. %, based on the weight of the mixture.

14. (Canceled) The method of claim 1, wherein the applying comprises applying to a composite material subject to moisture absorption under hot and wet ambient conditions, and the formed coating reduces moisture absorption by from about 60 to about 100% as compared to an uncoated composite.

15. (Canceled) A method of coating a composite with a composition resistant to penetration by moisture, the composition substantially preventing moisture absorption into a composite otherwise subject to moisture absorption under hot and wet ambient conditions, the method comprising:
applying to a surface of the composite a composition comprising:

a) a mixture of esters of fatty acids and aliphatic hydrocarbons having a melting point in the range from about 170 to about 190°F; and

b) a powdered additive in sufficient amount to permit uniform heating of a mass of the composition and to provide compression of a mass of the composition upon cooling sufficient to substantially exclude occluded gasses from a cooled mass;

forming a coating on the composite surface without need to heat the applied composition to render the coating homogeneous.

16. (Canceled) The method of claim 14, wherein the mixture comprises paraffins and waxes, the paraffins primarily having a chain length of from about 18 to about 36 carbon atoms.

17. (Canceled) The method of claim 15, wherein the powdered additive is selected from the group consisting of powdered metals, metal carbides and metal oxides.

18. (Canceled) The method of claim 16, wherein the powdered additive comprises powdered aluminum comprising particulates in the range from about 25 to about 60 microns.

19. (Canceled) The method of claim 17, wherein the powdered additive is selected from aluminum and titanium oxide.

20. (Canceled) The method of claim 14, wherein the composition comprises a solid at ambient temperatures in the range below about 140°F.

21. (Canceled) The method of claim 14, wherein the forming of a coating onto a composite material forms a coating that reduces moisture absorption by from about 60 to about 100%.

22. (New) A coating composition to resist moisture penetration into a substrate coated with the coating, the composition prepared by a process comprising:

heating and blending together a mixture comprising waxes and paraffins and dispersing powdered metal, metal oxide, or metal carbide throughout the mixture; and

cooling the mixture to form a waxy solid substantially free of entrained gasses, the waxy solid having powdered metal, metal oxide or metal carbide dispersed therein;

wherein the composition forms a homogeneous coating on a substrate surface, without need to apply heat to the composition or substrate, so that moisture incursion into the coated substrate is reduced by at least about 50% as compared to an uncoated substrate under the same temperature and moisture conditions.

23. (New) The coating composition of claim 22, wherein the mixture comprises a mixture of beeswax and paraffins.

24. (New) The coating composition of claim 23, wherein the paraffins comprise primarily aliphatic hydrocarbons having chain lengths in the range from about 18 to about 36 carbon atoms.

25. (New) The coating composition of claim 22, wherein the metal comprises aluminum.

26. (New) The coating composition of claim 22, wherein the metal oxide comprises titanium oxide or aluminum oxide.

27. (New) The coating composition of claim 23, wherein the metal comprises aluminum.

28. (New) The coating composition of claim 23, wherein the metal oxide comprises titanium oxide or aluminum oxide.

29. (New) The coating composition of claim 22, wherein during the process of preparing the mixture, before adding powdered metal or metal oxide, the mixture has a melting point in the range of about 120 to 200°F.

30. (New) The coating composition of claim 22, wherein the composition is a solid at temperatures in the range below about 140°F, and liquefies upon heating to a temperature in the range from about 170 to about 190°F.

32. (New) The coating composition of claim 22, wherein the powdered metal or metal oxide or metal carbide comprises a sufficient amount to permit uniform heating of a mass of the composition, and to provide such internal compression of a mass of the composition upon cooling as to substantially exclude occluded gasses from a cooled mass.

33. (New) The coating composition of claim 22, wherein the amount of powdered metal or metal oxide in the mixture comprises from about 5 to about 15 wt. %, based on the weight of the mixture.

34. (New) The coating composition of claim 22, wherein when coated onto a composite substrate subject to moisture absorption under hot and wet ambient conditions, the coating composition reduces moisture absorption by from about 60 to about 100% as compared to an uncoated composite.

35. (New) A coating composition resistant to penetration by moisture, the composition substantially preventing moisture absorption into a composite otherwise subject to moisture absorption under hot and wet ambient conditions, the composition comprising:

a) a mixture of esters of fatty acids and aliphatic hydrocarbons having a melting point in the range from about 170 to about 190°F; and

b) a powdered additive in sufficient amount to permit uniform heating of a mass of the composition and to provide compression of a mass of the composition upon cooling sufficient to substantially exclude occluded gasses from a cooled mass;

wherein the composition forms a homogeneous coating on a substrate surface, without need to apply heat to the composition or substrate, so that moisture incursion into the coated substrate is reduced by at least about 50% as compared to an uncoated substrate under the same temperature and moisture conditions

36. (New) The coating composition of claim 35, wherein the mixture comprises paraffins and waxes, the paraffins primarily having a chain length of from about 18 to about 36 carbon atoms.

37. (New) The coating composition of claim 35, wherein the powdered additive is selected from the group consisting of powdered metals, metal carbides and metal oxides.

38. (New) The coating composition of claim 36, wherein the powdered additive comprises powdered aluminum comprising particulates in the range from about 25 to about 60 microns.

39. (New) The coating composition of claim 37, wherein the powdered additive is selected from aluminum and titanium oxide.

40. (New) The coating composition of claim 35, wherein the composition comprises a solid at ambient temperatures in the range below about 140°F.

41. (New) The coating composition of claim 35, wherein when coated onto a composite substrate, the coating composition forms a coating that reduces moisture absorption by from about 60 to about 100%.